Summary of AIRS Standard Operating Procedures Updates

Additions to Sections already developed

2.1.2 Operations	• Description of the concept behind and reasons for implementing AIRS Regional Channels • Recommendation to use AIRS regional channels in preference to using the AIRS statewide channel
2.1.4 National Interoperability Channels	• Recommendation to program at least the calling channel and the first tactical channel
2.2.3 800 MHz Channels/Frequencies	• Content from the ARRC Plan providing more detailed licensing and use information for the 800 MHz national interoperability channels
2.2.4 AIRS Monitoring Assignments	• Limitations including lack of standardization in current AIRS monitoring practices • Updates to the Table identifying monitoring communication centers
2.3.3 Restrictions and Limitations to AIRS Coverage	• Explanation of the AIRS Coverage Maps, how they are generated and how to interpret them • Limitations of using overlapping channels
2.3.4 Monitoring and Dispatch Actions	• Limitations of Simplex use
2.3.5 Field User Actions	• Requirement to listen before transmitting • Restrictions on use as a travel channel
2.4 Problem ID and Resolution	• Requirement for agencies to ensure their equipment is functioning before placing a service call
2.5 AIRS Testing Protocols	• Requirement for communication centers to document tests as required by their own policies and procedures

Development of Additional Section Content

2.3.4.1 Multi-Agency Incident Use	• Multi-agency Incidents for which AIRS is available • Multi-agency Incidents for which AIRS is unavailable
2.3.4.2 Itinerate Use	• Itinerate Use

Summary of AIRS Standard Operating Procedures Updates

Additions to Sections already developed

(Additions are shown in italics)

2.1.2 Operations

Because the AIRS regional channels use a single frequency (per band) to cover the entire state, system originators developed a means of controlling intra-system inference by dividing up primary channel usage among the nine regional areas. Breaking the state into nine regional areas ensures that the amount of intra-system interference can be minimized while still providing good field coverage with a minimum of channel changes (See Appendix A: AIRS Regional Channel Assignments & Coverage Maps). Five CTCSS (PL) tones control the nine regions. By reusing the CTCSS tone around the state, Arizona reduces the number of channels needed in the subscriber radios.

In addition to the regional channels, the AIRSAZ channel is available throughout the state, except for Maricopa County. However, because interference is minimized in the regional channels AIRS1 through AIRS5, their use is encouraged, and the use of the statewide channel AIRSAZ is discouraged.

2.1.4 National Interoperability Channels

While the AIRS MOU applies specifically, and only, to AIRS-suite channels and does NOT include VCALL/VTAC, UCALL/UTAC, or 8TAC channels, agencies are encouraged to program all of the interoperable channels operating in their frequency band into their radios. At a minimum, the calling channel and the first tactical channel should be programmed.

2.2.3 800MHz Channels/Frequencies

The 800 MHz channels are all FCC designated national interoperability channels requiring no separate FCC license for mobile equipment. Mobile Relay (FB2) and Fixed Stations (FB) require FCC licensing.

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The 8TAC1 through 8TAC4 channels are also national channels. Optionally, the channel name can be modified when used in the direct or talk around mode with the addition of "_D" to the end of the channel name (for example, 8TAC2_D). The 8TAC5 and 8TAC5_D Channels are only recognized in Arizona, but could be used with programming assistance if necessary. The 8TAC5 channel must be licensed. The use of the 8TAC5 D channel need not be licensed. Use of these channels is restricted per 4.5.2.1 of the ARRC Plan.

2.2.4 Regional AIRS Monitoring Assignments

AIRS is generally monitored by region. However, not all regions have a communications center capable of and responsible for monitoring the entire region. Also, some suite locations are too far from any communications center for monitoring to take place.

Summary of AIRS Standard Operating Procedures Updates

The table below identifies monitoring communication centers. Since AIRS monitoring practices are just beginning to be standardized throughout the state, AIRS users must inform themselves about monitoring practices currently in place in their regions and understand any limitations to using AIRS related to those practices.

Table 4 Regional Monitoring Assignments

The table reflects our current understanding. Conversations with DPS, County communications centers, and others continue. The chart will be updated as appropriate.

2.3.3 Restrictions and Limitations

The AIRS Suite is limited to one frequency pair per band for the entire state.

Coverage. *The AIRS Regional Channel Assignment Map (see Appendix A: AIRS Regional Channel Assignments & Coverage Maps) is intended to show assignment of AIRS Channels and should not be interpreted as showing that coverage is available throughout the region and follows along county lines. Users must see the County Maps following the Regional Map to help determine actual availability of coverage and identify gaps in coverage.*

The County Maps show composite radio coverage aggregated from all individual single site coverage estimates in the county. This aggregated coverage is mapped in a single color as the top layer on the County Map. The assigned regional AIRS channel shown on the AIRS Regional Channel Assignment Map is generally available throughout most of the aggregated coverage area shown on the County Map.

There may be additional AIRS coverage from an adjacent county that is not visible on the County Map. That coverage can be identified on the County Map for the adjacent region where it is mapped as the top layer. In areas where coverage from more than one region overlaps, user need to become familiar with both coverage areas to understand which AIRS Channels and monitoring agencies may be active. Users risk losing their monitoring and dispatching support when they move to an overlapping channel because that channel has a different CTCSS (PL) tone.

2.3.4 Monitoring and Dispatch Actions

The communication centers identified in Section 2.2.4, Table 4 Regional Monitoring Assignments are responsible for monitoring the regionally assigned AIRS channel 24/7. DPS will monitor AIRS in areas where communication centers cannot monitor. The volume for AIRS must be set to a level allowing dispatchers to immediately hear and respond to any message traffic across that channel at all times. Note that car-to-car or simplex AIRS usage will not be monitored by any dispatch center and that simplex users will not have the ability to communicate across different bands.

Summary of AIRS Standard Operating Procedures Updates

2.3.5 Field User Actions

1. *Initiate command protocols according to the Incident Command System (ICS) for all incidents or events requiring the response of multiple agencies.*
2. *Before transmitting on AIRS, any users must listen to the channel first to ensure that their radio traffic will not be covering or interfering with that of another user.*
3. *Do not use AIRS as a travel channel for traffic unrelated to an incident or itinerate user emergency.*
4. *Report any problems with AIRS to agency/communication center personnel who will initiate the AIRS problem identification and resolution process.*

2.4 Problem ID and Resolution

Technical and maintenance problems with AIRS are resolved by DPS. Agencies must make sure their equipment is functioning before placing a service call on the AIRS system.

The SIEC, with the support of the PSIC Office, recommends solutions for oversight issues and any unresolved technical and maintenance issues.

2.5 AIRS Testing Protocols

Each communication center responsible for AIRS monitoring duties should host regular open-net tests of the AIRS system.

1. *Each center's test will be set and announced in advance at the discretion of the center.*
2. *At the onset of the test, communications center personnel will announce the start of the test, ensure that the channel is not otherwise in use, and execute a roll-call of public safety and service agencies within the monitored area that have agreed to take part in the test.*
3. *Additional agencies not included in the roll-call should be given an opportunity to announce themselves at the end of the roll-call.*
4. *The communication center can then terminate the test and document it as required by its own policies and procedures.*
5. *If AIRS problems are identified during the open-net test, the center will follow the Section 2.4 Problem ID and Resolution procedures to initiate the resolution process for those problems.*

Summary of AIRS Standard Operating Procedures Updates

Development of Additional Section Content

2.3.4.1 Incident Use

1. Incident Use

Agencies leading multi-agency incidents where AIRS channels are needed will notify the monitoring communication center of their need for the channel either by clearing on air or calling the center, and will describe the nature of the incident.

Multi-agency Incidents for which AIRS is available:

1. The monitoring communications center will confirm availability of the AIRS channel and tell the agency to go ahead and begin use.
2. The lead agency will confirm that it is assuming responsibility for dispatching the incident and take responsibility for notifying additional agencies, as appropriate.
3. The monitoring communications center will continue to monitor AIRS traffic in the event of a change in the incident or the development of a subsequent incident.
4. The lead agency's communication center should provide dispatch services for the incident unless/until Incident Command is established.
5. During an incident, communication centers and agencies will document radio traffic on AIRS in a manner consistent with their agency operating procedures for AIRS incidents. This will vary by center. For example, monitoring communication centers will log the incident if creating a log record for AIRS use is consistent with their daily operations protocols. Agencies using AIRS will initiate a CAD record for the incident if creating such a record is consistent with their daily operations protocols.
6. At the termination of an incident, or when the incident no longer requires the use of AIRS, the lead agency should announce that AIRS will no longer be used for incident traffic and that all field personnel should return to their home communication center. The lead agency will then announce that the channel is clear, document the time in their incident records and notify the monitoring communication center that the channel is available.

Multi-agency Incidents for which AIRS is unavailable:

1. If the channel is not available and Incident Command has not yet been established, the primary monitoring communication center will advise the agency requesting the channel that it is in use and attempt to provide both requesting agencies with any available information needed to prioritize the use of AIRS for the simultaneous incidents. Monitoring personnel, at their discretion, may suggest other interoperable communications resources based on their knowledge of the in-progress incident utilizing AIRS, other available resources, and so on.
2. The agencies leading the simultaneous incidents will determine which incident will be assigned the AIRS channel based on prioritization

guidelines outlined above in Section 2.3.2 unless/until Incident Command is established.
3. If the AIRS asset is transferred, the lead agency or Incident Command relinquishing the AIRS channel will contact the primary monitoring communications center to advise them of the transfer.

2.3.4.2 Itinerate Use

Itinerate Use

1. AIRS is available for emergency use by itinerate users. Itinerate users are defined as responders working outside of their agency's coverage area. They may use AIRS channels to request assistance through the monitoring communication center for the region where the emergency occurs.
2. The monitoring communication center will assist the requester by contacting an appropriate local agency to respond and will maintain communication with the requester as needed until communications can be moved to another asset.
3. The primary monitoring agency may facilitate notification to the responder's agency of the responder's situation if requested to do so.
4. The communication centers and agencies involved will document itinerate use of AIRS in a manner consistent with their daily practices for incidents within their agency.